



**3 RD. INTERNATIONAL CONFERENCE  
SOLAR ENERGY STORAGE AND  
APPLIED PHOTOCHEMISTRY,  
Cairo, Egypt  
8 - 14 January 1995**

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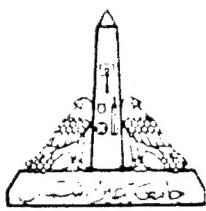
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## REPORT DOCUMENTATION PAGE

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Photoenergy Centre  
Faculty of Science  
Abbasia, Cairo, Egypt

**3rd INTERNATIONAL  
CONFERENCE**

**SOLAR ENERGY  
STORAGE & APPLIED  
PHOTOCHEMISTRY**

**8-14 January 1995**

**Honorary Presidents of the  
Conference**

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The President of Ain Shams University

**Rabie A. M.**

The Dean, Faculty of Science

**Organized by**

**PHOTOENERGY CENTRE  
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CAIRO, EGYPT**



**3rd INTERNATIONAL  
CONFERENCE**

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STORAGE & APPLIED  
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MINISTRY OF PETROLEUM,

**Dear Friends and Colleagues**

The Conference (Solar '95) is almost upon us. The provisional program has been already distributed. Details will be made available upon arrival. If you have not registered yet, early registration is advisable. We plan to pick you up from the Cairo International Airport. Therefore, please provide us with details of your flight.

In our planning we have tried to maintain a strong focus on our chosen theme- Photochemical Storage of Solar Energy and applied Photochemistry. We are committed to providing an array of presentations that meet the interests of photoscientists.

Looking very much forward to seeing you in Cairo very soon.

*Abdel-Mottaleb, M.S.A.*

Chairman, Organising Committee

## PROGRAMME STRUCTURE

The scientific programme consists of:

\* **plenary** (PL- 45 Mins.), **keynote** (KL- 35 mins.) lectures and **short talks** (ST- 25 mins.) plus 10 mins. for discussions.  
 \* **poster sessions.** Poster format is 120 cm heightx75 cm width.

\* **an exhibition**, companies interested in exhibiting products (instruments, books, magazines, computer software, video's, etc.) should contact the chairman of the organizing committee. Space is on a first come first served basis and is limited.

An outstanding list of speakers has been assembled, addressing topics of general interests and of applied nature:

### *ABD EL AZZIZ, A. S. (CANADA)*

PHOTOLYSIS OF POLYAROMATIC ETHERS AND THIOETHERS WITH PENDANT CYCLOPENTADIENYLIRON MOIETIES

### *AL-HASSAN, K. (JORDAN)*

FREE VOLUME SENSING FLUORESCENCE "TICT" PROBES FOR CYCLODEXTRINS INTERIOR

### *ALI, S. I. (INDIA)*

PHOTOEXCITATION OF TRANSITION

### METAL COMPLEXES IN ORGANIC SUBSTRATES

#### *ALONSO-VANTE, N. (GERMANY)*

THE SIGNIFICANCE OF SURFACE STATES FOR PHOTOCHEMICAL CATALYSIS AT THE SEMICONDUCTOR/ELECTROLYTE INTERFACES

#### *AZUMI T (JAPAN),*

#### *BADR, M. Z. (EGYPT)*

PHOTOLYSIS AND PYRROLYSIS OF ACID AMIDES AND SULPHONAMIDES; MECHANISTIC STUDIES

#### *BILLING, R. (GERMANY)*

SELECTIVE OXIDATION OF ALCOHOLS BY DIPHENYLIODONIUM IONS IN A PHOTOINDUCED CHAIN REACTION

#### *BOLTON, J. (CANADA)*

SOLAR DETOXIFICATION OF WASTE WATER

#### *BOXER, S. (USA)*

MECHANISM OF THE EARLY STEPS IN PHOTOSYNTHESIS

#### *BRASLAVSKY, S. (GERMANY),*

TIME-RESOLVED PHOTOTHERMAL MEASUREMENTS ON BIOLOGICAL PHOTORECEPTORS

#### *CALDWELL, R. (USA)*

APPLICATIONS OF TIME-RESOLVED PHOTOACOUSTIC CALORIMETRY IN

## ORGANIC CHEMISTRY

**CALZAFERRI, G. (SWITZERLAND)**  
DYE MOLECULES IN ZEOLITES AS  
ARTIFICIAL ANTENNA SYSTEMS

**DE SCHRYVER, F. C. (BELGIUM)**

**DOEPP, D. (GERMANY)**  
REGIO- AND STEREOSELECTIVITY IN  
LIGHT INDUCED [4+2]-CYCLOADDITIONS  
OF ALPHA-CYANOENAMINES TO  
AROMATIC CARBONYL COMPOUNDS,  
NITRILES AND HYDROCARBONS

**DUERR, H. (GERMANY)**  
MOLECULAR AND SUPRAMOLECULAR  
SYSTEMS IN PHOTOCHROMISM

**EL-SAYED, M. A. (USA)**

**ESPLUGAS, S. (SPAIN)**  
DESTRUCTION OF WATER  
CONTAMINANTS USING UV/ OXIDANT  
METHODS

**ETMAN, M. (FRANCE)**  
PHOTOELECTROCHEMICAL STUDIES ON  
ANODIC DISSOLUTION OF Si  
SEMICONDUCTORS

**FARA, L. (ROMANIA)**  
PHOTOPHYSICAL & PHOTOCHEMICAL  
PROPERTIES OF DYE MOLECULES IN  
POLYMERS USED FOR FLUORESCENT  
SOLAR CONCENTRATORS.

**FITZMAURICE, D. (IRELAND)**  
HETROSUPRAMOLECULAR CHEMISTRY:  
AN APPROACH TO MODULATING  
FUNCTION IN MOLECULAR DEVICES.

**FUJIMURA Y (JAPAN)**

**GEORGE, K. (INDIA)**  
METAL RECOGNITION AND PHOTO -  
SENSITIZING PROPERTIES OF NOVEL  
SQUARAIN DYES

**GETOFF, N. (AUSTRIA)**

**GILBERT, A. (UK)**  
PHOTOCHEMISTRY AS A CLEAN  
TECHNOLOGY FOR SYNTHESIS OF  
EFFECT CHEMICALS

**GREVELS, F. (GERMANY)**  
PHOTOLYSIS OF GROUP 8 METAL  
CARBONYLS: TRANSIENT IR  
SPECTROSCOPY, PHOTOKINETICS AND  
QUANTUM YIELDS OF CO SUBSTITUTION

**GRAETZEL, M. (SWITZERLAND)**  
NANOCRYSTALLINE SOLAR CELLS;  
SCIENTIFIC PRINCIPLES AND ECONOMIC  
PERSPECTIVES

**GUILLET, J. (CANADA)**  
SOLAR SYNTHESIS OF HYDROGEN  
PEROXIDE

**HARRIMAN, A. (USA)**  
PHOTOCHEMOTHERAPY WITH CYANINE  
DYES

**HAU, D.-M. (TAIWAN)**  
 PHOTOCHEMOTHERAPY ON  
 EXPERIMENTAL TUMOR WITH  
 PHOTOFRIN II AND LASER

**HILL, C. (USA)**  
 EXCITED STATE CHARACTERISTICS AND  
 NEW UNACTIVATED C-H BOND  
 FUNCTIONALIZATION PHOTOCATALYSIS  
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**HOFFMAN, M. (USA)**  
 ELECTROLYTE AND TEMPERATURE  
 EFFECTS IN PHOTOINDUCED  
 INTRAMOLECULAR ELECTRON-  
 TRANSFER REACTIONS

**KHAN, M. K. A. (BANGLADESH)**  
 STUDY OF A CUO<sub>2</sub> BASED  
 PHOTOELECTROCHEMICAL SOLAR  
 CELLS

**KOSSANYI, J. (FRANCE)**

**KRISHNAN, V. (INDIA)**  
 NON-PLANAR PORPHYRIN MOLECULAR  
 ASSEMBLIES

**KORPPI-TOMMOLA, J. (FINLAND)**  
 SELFORGANIZATION OF CHLOROPHYLLS  
 IN HYDROCARBON SOLUTION AND IN  
 VIVO SYSTEMS: PICO- AND  
 FEMTOSECOND RELAXATION IN WATER  
 BOUND CHLA AGGREGATES AND CL.  
 TEPIDUM CHLOROSOMES

**KURRECK, H. (GERMANY)**  
 MIMICKING PRIMARY PROCESSES OF  
 PHOTOSYNTHESIS MODEL COMPOUNDS,  
 LIGHT-INDUCED CHARGE SEPARATION.

**KUZMIN, M. (RUSSIA)**  
 PHOTOINDUCED PROTON TRANSFER IN  
 ORGANIZED MOLECULAR SYSTEMS

**LEUPOLD, D. (GERMANY)**  
 CHARACTERIZATION OF  
 PHOTOSYNTHETIC ANTENNAS BY  
 NONLINEAR POLARIZATION  
 SPECTROSCOPY (FREQUENCY DOMAIN)

**LOEHMANNSROEBEN, H.-G.  
 (GERMANY)**  
 FLUORESCENCE OF POLYNUCLEAR  
 AROMATIC COMPOUNDS AND MINERAL  
 OILS IN ENVIRONMENTAL MONITORING

**LOUTFY, R. O. (CANADA)**

**MASUHARA, H. (JAPAN)**  
**MAZZUCATO, U. (ITALY)**  
 PHOTOCHROMIC MATERIALS: A  
 COMPREHENSIVE KINETIC  
 THERMODYNAMIC AND  
 PHOTOCHEMICAL STUDY

**MELE, A. (ITALY)**  
 PULSED LASER ABLATION: THIN FILM  
 PRODUCTION AND COATING, PROCESS  
 DIAGNOSTICS

<b>MEMMING, R. (GERMANY)</b>	PHOTOSYNTHETIC GENE ACTIVATION
<b>MORRISON, H. (USA)</b> PHOTOCHEMICAL REARRANGEMENTS OF OXAZIRIDINES	<b>SPANHEL, L. (GERMANY)</b> SOL-GEL SYNTHESIS AND SPECTROSCOPIC PROPERTIES OF NANOSCALED HYBRID MATERIALS
<b>NAVIO, J. A. (SPAIN)</b> PHOTODEGRADATION OF BUTYLTIN COMPOUNDS IN WATER: ENVIRONMENTAL IMPLICATIONS	<b>TAKASHI, I. (JAPAN)</b> PHOTOCATALYTIC REDUCTION OF CARBON DIOXIDE WITH WATER
<b>OPPENLAENDER, T. (GERMANY)</b> NOVEL VACUUM-UV-(VUV) AND UV-EXCIMER FLOW THROUGH PHOTORECTORS FOR WAST WATER TREATMENT AND FOR WAVELENGTHS SELECTIVE PHOTOCHEMISTRY	<b>TERENETSKAYA, I. (UKRAINE)</b> AN IN VITRO MODEL OF PREVITAMIN D PHOTOSYNTHESIS AS POSSIBLE MONITOR OF SOLAR UVB RADIATION: KINETIC STUDIES USING TUNABLE LASER
<b>OZANAM, F. (FRANCE)</b> IN-SITU INFRARED STUDY OF THE INTERFACIAL LAYER DURING THE ANODIC DISSOLUTION OF A SILICON ELECTRODE IN A FLUORIDE ELECTROLYTE	<b>TESTA, A. (USA)</b> PHOTOINDUCED PROTON TRANSFER IN SUBSTITUTED PYRIDINES
<b>RAHMAN, N. (ITALY)</b>	<b>TOLBERT, L. (USA)</b> EXCITED-STATE PROTON TRANSFER IN CONSTRAINED ENVIRONMENT
<b>SABBATINI, N. (ITALY)</b> LUMINESCENCE OF INCLUSION COMPLEXES OF LANTHANIDE IONS	<b>TOKUMARU, K. (JAPAN)</b> ROLE OF HIGHER EXCITED STATES IN ORGANIC PHOTOCHEMISTRY
<b>SONG, P.-S. (USA)</b> PHYTOCHROME AS LIGHT SENSOR FOR	<b>TRIBUTSCH, H. (GERMANY)</b> PHOTOCHEMICAL ENERGY CONVERSION: IRREVERSIBILITY AS A CHANCE
	<b>TROZZOLO, A. (USA)</b> CREATION AND DETECTION OF

REVERSIBLE PHOTOCHEMICALLY GENERATED INTERMEDIATES

**WAGNER, P. J. (USA)**

TRIPLET STATE RADICAL CLEAVAGE OF RING SUBSTITUENTS ON PHENYL KETONES: DIFFERENT MODES FOR DIFFERENT ELECTRONIC STATES

**WILLIG, F. (GERMANY)**

INJECTION AND DISCHARGE OF PHOTO-GENERATED CHARGE CARRIERS AT THE SEMICONDUCTOR/ ELECTROLYTE INTERFACE

**WELLER, A. (GERMANY)**

PHOTOINDUCED ELECTRON TRANSFER REACTION IN FLEXIBLE LINKED DONOR-ACCEPTOR SYSTEMS

**WILKINSON, F. (UK)**

**WULFMAN, C. (USA)**

CATASTROPHIC POLARIZATION OF TWISTED EXCITED STATES

**YAMAUCHI, S. (JAPAN)**

TIME-RESOLVED EPR STUDIES ON THE EXCITED POLYMERS OF SANDWICH PARALLEL TYPE IN PORPHYRINS AND PHTHALOCYANINES

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PHENAZINE-PHOTOSENSITIZED REDUCTION OF CO<sub>2</sub> MEDIATED BY COBALTCYCLAM COMPLEXES

**ZACHARIASSE, K. A. (GERMANY)**

INFLUENCE OF ENERGY GAP DELTA E(S<sub>1</sub>,S<sub>2</sub>) AND AMINO N-INVERSION IN INTRAMOLECULAR CHARGE TRANSFER. DUAL FLUORESCENCE AND SINGLE CT-EMISSION

**ZENKEVICH, E. I. (BELARUS)**

DIPOLE-DIPOLE AND EXCHANGE ENERGY TRANSFER IN DIFFERENT TYPES OF PORPHYRIN CHEMICAL DIMERS

**ZEWAIL, A. H. (USA)**

**ZIMMERMAN, H. (USA)**

RECENT ADVANCES IN MECHANISTIC AND EXPLORATORY ORGANIC PHOTOCHEMISTRY

### BOOK OF ABSTRACTS

The abstracts of all contributions will be compiled in the Book of Abstracts, which will be distributed to all participants upon arrival.

### CONFERENCE PROCEEDINGS

The conference proceedings will be published in the Proceedings of the Indian Academy of Sciences, Chemical Sciences. Full papers (maximum of 15 pages' A4 format) will be published in the proceedings of the conference. It is expected to appear in September 1995. Authors should submit their manuscripts

at the conference at the latest. Instructions for authors are given at the end of this circular.

### GENERAL INFORMATION

Conference flow is given below. Registration starts at 12.00 pm on Sunday 8, 95 (Le Meridien Hotel Heliopolis). The scientific sessions of the meeting start on Monday morning, 9 January and ends on Saturday, 14 January.

### ACCOMMODATION

A block of rooms has been reserved to accommodate the conference participants at Le Meriedien hotel at reduced Rates. Rates per person/night - Breakfasts, Lunches and Refreshments at Breaks will be provided. Taxes and service inclusive. A hospitality desk will be available at Le Meridien Hotel for the convenience of the delegates to offer wide range of assistance. Hotel reservation cannot be confirmed without receiving one night deposit.

A shuttle bus service is available (free of charge) from/to the Airport. To facilitate picking you up from the Airport, please send us full details about your flight to Cairo (one week before arrival, at least).

A representative of Ain Shams University will meet, welcome and assist Conference attendees inside Cairo

Airport, through passport and custom formalities, provide visa (on the spot) if necessary. (All Egyptian consulates grant entry visas without restrictions).

### \* Confirming Reservation

As soon as possible we will send a receipt of the payment and the voucher for the booked Hotel. Please send us a copy of the Bank Transfer Document.

### INTERNATIONAL TRAVEL

Egypt Air has been appointed official carrier to the Conference. Please contact the nearest Egypt Air office in your country. The organisers request that all persons travel by Egypt Air.

### CLIMATE AND CLOTHING

Cairo invites you to come and enjoy its beautiful weather and shining sun. The climate is dry all the year round. In January, the cool season, the temperature ranges between 8-18 C. Medium weight clothing, and possibly a top coat would be suitable. For Welcome Reception and Banquet, Jacket and tie/Cocktail dress are preferable. There is no formal dress for the day functions.

### SOCIAL EVENTS AND EXCURSIONS

Egypt has immense tourist potentials making it a touristically- attractive State of the first type.

A full programme of social events is planned for all attendees (free of charge), to include: Welcome Reception/Dinner: Sunday 8 January. Wednesday 11 January is being set aside for organised excursion to the Egyptian Museum of Antiquities, Pyramids of Giza and Sphinx & Sound and Light Show at the Pyramids.

There will in addition be a full programme of daytime events for the accompanying persons, include tours to visit some touristic landmarks in Cairo and Giza: Memphis and Sakkara, Citadel, Mohamed Ali Mosque, Khan El-Khalili Bazaars, Tower of Cairo, Coptic Museum etc. Details of all events will be available upon arrival.

#### CONFERENCE BANQUET

Friday evening January 13, Oriental Evening: Egyptian traditional music and entertainments will be provided; (Tickets : \$60 US).

#### PRE/POST-CONFERENCE TOURS

We are not going to organise any pre/post-conference tours. However, for private reservation and information

concerning tours, we recommend you directly contact American Express of Egypt, Ltd, main office 21 Giza Street, Nile Tower, Giza, Egypt, Tel: (+202) 5703159 or 5703411. Group rate is expected to be given for a group which consists of 10 members at least.

#### Notes on the Preparation of Papers

Authors wishing to have papers published in the Proceedings should submit three sets (one original and two copies) of the paper to the Chairman of the Conference at the Conference. **Typescript:** Papers should be typed double spaced with ample margin on all sides. This also applies to the abstract, tables, figure captions and the list of references which are to be typed on separate sheets.

**Title Page:** 1- The title of the paper must be short and contain words useful for indexing. 2- The names with initials of authors and the name and address of the institution where the work was done must be given. 3- An abbreviated running title of not more than 50 letters and spaces must also be given.

**Abstract.** All papers must have an abstract of not more than 200 words of

the significant results reported in the paper. Presentation of numerical results should be avoided as far as possible in the abstract.

**Keywords.** Between 3 and 6 keywords must be provided for indexing and information retrieval.

**The Text.** The paper must be divided into sections starting preferably with 'Introduction' and ending with 'Conclusions'. The main sections should be numbered 1,2, etc. Subsections 1.1, 1.2, etc. and further subsections 1.1a, 1.1b, etc.

**Tables.** All tables must be numbered consecutively in Arabic numerals in the order of appearance in the text. They should be self-contained and have a descriptive title.

**Figures.** All figures including photographs should be numbered consecutively in Arabic numerals in the order of appearance in the text. Figure captions must be typed on a separate sheet. Line drawings must be in India ink on good quality tracing paper or on white card of a size smaller than that of the text paper. Structural formulae of compounds must be drawn in India ink on tracing paper. Lines must be drawn sufficiently thick for reduction to a half or third of the original size (0.3 mm for axes and 0.6 mm for curves are suggested).

**References.** Should be sated in the text

by author and year. If there are more than two authors, reference should be to the first author followed by et al in the text. References at the end of the paper should be listed alphabetically by authors names, followed be initials, year of publication, name of the journal (abbreviated according to the world list of scientific periodicals, Butterworths, London), volume number, and number of the first page. References to books should include: name(s) of author(s), initials, year of publication, title of the book, edition if not the first, initials and name(s) of editor(s) if any, preceded by ed(s), place of publication, publisher and chapter or pages referred to. References to thesis must include the year, the title of the thesis, the degree for which submitted and the university. References to reports and unpublished conference proceedings should include the title of the report/paper.

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 PHOTOENERGY CENTRE,  
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 AIN SHAMS UNIVERSITY  
 ABBASSIA, CAIRO, EGYPT  
 \* FAX: +2 02 2447 683  
 ALL THE TIME  
 BITNET:  
 SOLAR@EGFRCUVX.BITNET  
 E-MAIL : SOLAR@FRCU.EUN.EG  
 FAX: +2 02 8222 84

**CONFERENCE FLOW (TENTATIVE)**

Date	Morning	Afternoon	Evening
	08.30-12.30	14.00-18.00	
Sunday	Registration .....	Opening Remarks	
8 January		Invited Lectures	
		Reception	
Monday	Invited Lectures	Invited Lectures	
9 January		Poster I	
Tuesday	Invited Lectures	Invited Lectures	
10 January		Poster II	
Wednesday	MUSEUM OF ANTIQUITIES, PYRAMIDES		
11 January	AND SPHINX		
Thursday	Invited Lectures	Invited Lectures	
12 January		Poster III	
Friday	Invited Lectures	BANQUET	
13 January		Poster IV	
Saturday	Invited Lectures		
14 January	Closing Remarks		

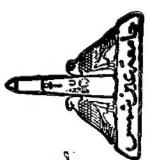
Coffee/Tea: 10.10-10.40 15.40-16.10

Lunch: 12.30-14.00

Participants will receive a detailed schedule of the Conference events upon arriving at the Conference.

**Last minute registration may be also accepted. Please contact the chairman immediately.**

Prof. ABDEL-MOTTALEB, M.S.A.



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علوم عين شمس

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